

## **QUALCOMM Incorporated**

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April 3, 2006

## Via ECFS

Ms. Marlene Dortch Secretary Federal Communications Commission 445 12<sup>th</sup> Street, S.W. Washington, DC 20554

Re: Oral Ex Parte Presentation in WT Docket No. 05-7

Dear Ms. Dortch:

This is to report that on Friday, March 31, 2006, Larry Hartigan, Jennifer McCarthy, Kent Walker and I, all with QUALCOMM, and Bob du Treil, Jr. of the consulting engineering firm du Treil, Lundin, and Rackley, Inc.and Ronnie Ahern of Nixon Peabody LLP met with Julius Knapp, Alan Stillwell, Ira Keltz, and Harry Wong of the FCC Office of Engineering & Technology (collectively, the "OET Staff") to discuss QUALCOMM's Petition for Declaratory Ruling, which is pending in the above-captioned proceeding.

We began the meeting by discussing the continued progress that QUALCOMM is making in fulfilling its plan to launch MediaFLO in October of this year. In particular, we discussed the facts that in December of 2005, Verizon Wireless announced that it will be the first carrier to offer MediaFLO commercial service to its subscribers to an initial footprint of 75 million people. More recently, last month, Sprint Nextel announced that they are conducting trials of MediaFLO. In addition, we stated that in January 2006, MediaFLO was demonstrated live over the air at the Consumer Electronics Show on LG and Samsung wireless phones, and that we expect other handset vendors also to manufacture MediaFLO-enabled handsets. Finally, we explained that QUALCOMM has entered into tower lease agreements to gain access to towers around the country, and QUALCOMM has installed its equipment to operate MediaFLO from many of these sites. However, QUALCOMM cannot finalize the launch of MediaFLO on the planned timetable and bring the innovative and beneficial MediaFLO service to the public within the planned footprint until the Commission rules on QUALCOMM's Petition for Declaratory Ruling. Thus, we reiterated that a ruling on QUALCOMM's Petition for Declaratory Ruling is needed as soon as possible.

We then discussed the very conservative nature of QUALCOMM's technical design of the MediaFLO system, the factors that establish that any

potential over-the-air interference from MediaFLO to over the air television reception will be truly *de minimis*. We began this discussion by explaining that the MediaFLO signal is similar, for interference purposes, to a lower power DTV signal. The MediaFLO signal is digital, noise-like, one-way, and operates in a 6 MHz channel. Indeed, MediaFLO will provide greater protection to co-channel and adjacent channel TV and DTV stations than a DTV station would because the Part 27 D/U ratios are considerably more protective of TV and DTV stations than the corresponding Part 73 D/U ratios. We stated that the Part 27 ratios are up to 8 dB more protective than the Part 73 ratios for co-channel into DTV; up to 6 dB more protective for co-channel into analog TV; up to 5 dB more protective for lower adjacent into DTV; up to 3 dB more protective for upper adjacent into DTV; up to 14 dB more protective for lower adjacent into analog TV; and up to 17 dB more protective for upper adjacent channel into analog TV.

In addition, we explained that MediaFLO uses a very conservative emission mask, which also results in greater protection to co-channel and adjacent channel TV and DTV stations. First, the Part 27 emission characteristic, in general, produces a first adjacent side-band power level that is 17 dB below that of a comparable full power DTV signal. Second, the Part 27 emission mask is a function of transmitter power, and, therefore, the maximum side-band power emitted from Part 27 facilities will not change regardless of the power used. MediaFLO facilities, in particular, will operate with an actual emission characteristic that is significantly less than even the Part 27 mask, which, as noted, is already 17 dB below that of a comparable DTV station. Thus, MediaFLO not only meets the very conservative Part 27 D/U ratios, but it also uses an even more emission mask. As a result of these measures, we stated that MediaFLO system uses a well-engineered, highly conservative approach, and it is very appropriate to allow QUALCOMM to use the OET-69 methodology and the proposed 2% limit for *de minimis* interference under these circumstances.

We also reminded the OET Staff that as QUALCOMM explained to them on June 23, 2005 and as set forth in an ex parte filing of June 24, 2005, the Engineering Exhibit attached to QUALCOMM's Petition for Declaratory Ruling assumed that QUALCOMM would be permitted to radiate both 50,000 watts in the vertical polarization and 50,000 watts in the circular polarization. However, after filing the Petition for Declaratory Ruling, QUALCOMM learned from the Wireless Telecommunications Bureau that under its interpretation of the Part 27 Rules, QUALCOMM would not be permitted to radiate 50,000 watts in both polarizations and instead would be limited to radiating 50,000 watts in the sum of all polarizations. As a result, in the three markets studied in QUALCOMM's Engineering Exhibit, QUALCOMM would actually radiate 25,000 watts in both polarizations, not 50,000 watts in both polarizations, and thus, as QUALCOMM explained in its June 24, 2005 ex parte filing, the strength of the MediaFLO signal

will be 3 dB less at any point than was shown in the QUALCOMM's Engineering Exhibit.

Moreover, we explained that as set forth in QUALCOMM's Reply Comments in this proceeding, when MediaFLO uses more than one transmitter within the same market, the signals are not correlated. For this reason, the root sum squared (RSS) method is the most appropriate way to calculate aggregate potential over-the-air interference.

During the meeting, we were asked whether it would be appropriate to permit QUALCOMM to use the established OET-69 methodology as it has proposed when a MediaFLO transmitter is located inside the Grade B contour of an adjacent channel station and is not co-located with the station's transmitter. We noted that in QUALCOMM's Reply Comments in this proceeding, which were filed on March 25, 2005, at footnotes 30 and 31, on page 10, we cited numerous applications granted by the Commission wherein full power analog and full power digital stations, as well as low power TV (LPTV) stations, were all permitted to use the OET-69 methodology and the existing D/U ratios to locate their stations within the Grade B contour of an adjacent channel station, in many cases without being co-located with the transmitter of the adjacent channel station. There is no basis to treat MediaFLO any differently than the applicants in these cases were treated.

In addition, we explained that, due to a number of factors, there is a large protective margin to the interference that MediaFLO is predicted to cause. These factors are: 1) the more protective Part 27 D/U ratios that MediaFLO will meet; 2) the conservative Part 27 emission mask; 3) the even more conservative emission mask used by MediaFLO; and, 4) MediaFLO's reduced signal strength. This large margin to predicted interference is more than adequate to deal with any statistical signal variability that may occur within the Grade B contour of the desired station, and, therefore, it is appropriate to permit QUALCOMM to use OET-69 when it seeks to locate its transmitter within the Grade B contour of an adjacent channel station, whether or not the MediaFLO transmitter is co-located with the station's transmitter.

We were also asked whether QUALCOMM could deliver MediaFLO to the initial footprint of 75 million people in accordance with the announced plans by launching the service at a lower power and then raising the power over time. Under this scenario, the use of the 2 percent threshold for potential over-the-air interference would be phased in-- initially, the permitted over-the-air potential interference threshold would be up to a percentage less than 2 percent; then, a year later, the threshold would be raised to a higher percentage but still less than 2 percent, and then, finally, two years later, as the DTV transition is ending, the threshold would be raised to the full 2 percent.

We explained that such a scenario would not allow QUALCOMM to deliver MediaFLO in the first two years to millions of Americans who live in a number of important markets around the country, which are within the planned footprint. This is not simply a matter of starting the service at a lower power; in these markets, the service could not be launched to various population centers unless the interference threshold is 2 percent. In addition, under the phased in scenario, the coverage within certain markets in which MediaFLO could be launched could be impaired, which would pose significant issues for a mobile service such as MediaFLO.

As QUALCOMM has explained in prior ex parte filings, it is true that QUALCOMM can go on the air in a small number of markets in which there are no adjacent channel or co-channel TV or DTV stations. Furthermore, QUALCOMM is negotiating to reach agreements with adjacent channel and cochannel stations in other markets in which QUALCOMM could not go on the air by meeting the 2 percent test (and, QUALCOMM has reached agreements with some of these stations, which agreements have entailed the early shut down of analog stations or the stations in question consenting to such interference). However, there are certain important markets in which QUALCOMM will not be able to deliver the MediaFLO service unless it is permitted to submit engineering studies based on the OET-69 methodology subject to the 2 percent interference test, the same test applied to DTV stations on the very same spectrum. As QUALCOMM has also explained in its prior filings, QUALCOMM will not need to reach the full percent in each market for which it submits an engineering study. But, to achieve the planned footprint, QUALCOMM will need to go up to the 2 percent in a number of important, heavily populated markets. The public interest will be harmed if MediaFLO is delayed or denied to the residents of these markets.

In addition, we explained that there is no technical basis for treating MediaFLO differently from the DTV stations operating on the very same spectrum. As already set forth herein, both MediaFLO and DTV stations transmit noise-like digital video signals in a 6 MHz channel.

Finally, we pointed out that under the Deficit Reduction Act of 2005, the DTV transition will end on February 17, 2009. As a result, any potential interference from MediaFLO to TV/DTV stations will, at most, occur for just over two years, at which point the TV/DTV stations will exit the relevant spectrum. This temporary situation is further limited by the facts that no viewer who watches TV via cable or satellite will suffer any interference from MediaFLO; no viewer who does not watch a particular affected station will suffer any interference from MediaFLO; and, no viewer who is outside of a confined geographic area will suffer any interference from MediaFLO. Thus, we pointed

out that the potential interference from MediaFLO is highly limited—limited in time, limited in geographic scope, and limited in the possible impact. QUALCOMM's proposal that it be permitted to submit engineering studies using the OET-69 methodology and meeting the 2 percent test for potential over the air interference is wholly reasonable and should be granted.

For all of these reasons, we urged the grant of QUALCOMM's Petition for Declaratory Ruling in its entirety. We also asked for issuance of such a ruling as soon as possible.

Respectfully submitted,

/s/ Dean R. Brenner

Dean R. Brenner Vice President, Government Affairs

Cc: Julius Knapp Alan Stilwell Ira Keltz Harry Wong